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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/585,590

07/11/2006

Jens Scheidel

12810-00320-US

7207

23416 7590 10/20/2009  
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EXAMINER

SHIAO, REI TSANG

ART UNIT

PAPER NUMBER

1628

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/585,590	<b>Applicant(s)</b> SCHEIDEL ET AL.	
	<b>Examiner</b> REI-TSANG SHIAO	<b>Art Unit</b> 1628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/11/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This application claims benefit of the foreign application:  
GERMANY 102004004724 with a filing date 01/29/2004.
2. Claims 1-10 are pending in the application.

### ***Information Disclosure Statement***

3. Applicant's Information Disclosure Statement filed on July 11, 2006 has been considered. Please refer to Applicant's copy of the 1449 submitted herein.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the instant catalyst represent compounds of formula (I) or (II), does not reasonably provide enablement for instant catalyst is not limited (i.e., no formula), see claim 1. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Dependent claims 2-10 are also rejected along with claim 1 under 35 U.S.C. 112, first paragraph.

In *In re Wands*, 8 USPQ2d 1400 (1988), factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. 112, first

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paragraph, have been described. They are:

1. the nature of the invention,
2. the state of the prior art,
3. the predictability or lack thereof in the art,
4. the amount of direction or guidance present,
5. the presence or absence of working examples,
6. the breadth of the claims,
7. the quantity of experimentation needed, and
8. the level of the skill in the art.

In the instant case:

**The nature of the invention**

The nature of the invention is a process of making 3-pentennitrile , wherein the catalyst is not limited (i.e., no formula), see claim 1.

**The state of the prior art and the predictability or lack thereof in the art**

The state of the prior art is Fischer et al. US 6,197,992, it discloses a similar catalyst comprising phosphorus ligands, see ligand (A) or (B) in columns 13-14.

**The amount of direction or guidance present and the presence or absence of working examples**

The only direction or guidance present in the instant specification is nickel (0) catalyst complexes comprising a ligand of formula (I) or (II), see pages 3-6 of the specification. There is no data present in the instant catalyst which is not limited (i.e., no formula).

***The breadth of the claims***

The instant breadth of the rejected claims is broader than the disclosure, specifically, the instant claims include any catalyst which is not limited.

**The quantity or experimentation needed and the level of skill in the art**

While the level of the skill in the chemical arts is high, it would require undue experimentation of one of ordinary skill in the art to resolve any catalysts without limitation. There is no guidance or working examples present for constitutional any catalysts, which are not limited. Incorporation of the limitation of catalyst (i.e., Ni(0) and formula (I) or (II) ) into claim 1 would overcome this rejection.

***Double Patenting***

5. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225

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USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable independently over claim 1 of Jungkamp et al. US 7,538,240, over claim 1 of Jungkamp et al. US 7,439,381, or over claim 1 of Scheidel et al. US 7,541,486. Although the conflicting claims are not identical, they are not patentably distinct from each other and reasons are as follows.

Applicants claim a process of making 3-pentennitrile by hydrocyanating 1,3-butadiene in the presence of hydrogen cyanide and a catalyst in a distillation apparatus, see claim 1.

Jungkamp et al. '240 claims process of making 3-pentennitrile by hydrocyanating 1,3-butadiene in the presence of hydrogen cyanide and a catalyst (i.e., Ni(0) catalyst comprising phosphorus ligands) in a loop reactor (i.e., distillation apparatus), see columns 10-12.

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Jungkamp et al. '381 claims process of making 3-pentennitrile by hydrocyanating 1,3-butadiene in the presence of hydrogen cyanide and a catalyst (i.e., Ni(0) catalyst), see columns 11-14.

Scheidel et al. '486 claims process of making 3-pentennitrile by hydrocyanating 1,3-butadiene in the presence of hydrogen cyanide and a catalyst (i.e., Ni(0) catalyst comprising phosphorus ligands) in a distillation apparatus see columns 27-30.

The difference between the instant claims and Jungkamp et al. '240 or '381, or Scheidel et al. '486 is that the instant claims are silent on the scope of catalyst. Jungkamp et al. '240 or '381, or Scheidel et al. '486 processes overlap with the instant invention.

One having ordinary skill in the art would find the instant claims 1-10 *prima facie* obvious **because** one would be motivated to employ the processes of Jungkamp et al. '240 or '381, or Scheidel et al. '486 to obtain the instant processes. Dependent claims 2-10 are also rejected along with claim 1 under the obviousness-type double patenting.

The motivation to obtain the claimed compounds derives from known Jungkamp et al. '240 or '381, or Scheidel et al. '486 processes would possess similar yields to that which is claimed in the reference.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rei-tsang Shiao whose telephone number is (571) 272-0707. The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brandon

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Fetterolf, can be reached on (571)272-2919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/REI-TSANG SHIAO/

Rei-tsang Shiao, Ph.D.  
Primary Examiner  
Art Unit 1628

October 07, 2009